The Problem of the Poor Reader

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SUMMARY

Children who are retarded readers may present a complex problem involving physical impediments, emotional distress, or teaching methods. A child with specific *reading disability has spatial confusion, an exaggeration or persistence of a normal childhood tendency to reversal of letters and symbols, ambidexterity, normal intelligence, and poor visual recall of words. Children with these characteristics fail to learn to read in a teaching system in which the main emphasis is on visual associations. Treatment of such reading difficulties, as well as prophylactic measures, is outlined.*

POOR readers are a problem not only for the ophthalmologist, but also for the pediatrician, psychiatrist, otolaryngologist and educator, because the disability may concern the eyes, the ears, a personality disorder or a teaching method. The ophthalmologist is frequently consulted to investigate children who have great difficulty in learning to read during the first few years of school. When this is the chief presenting complaint, it is only occasionally that a specific ocular condition is found as the main cause of the lack of progress in reading. Many children are referred to the ophthalmologist by the teacher or parents for vague visual reasons, and only specific questioning establishes the true difficulty as a reading disability. "How does the child do in reading and spelling as compared with other subjects?" should be a specific question put to the parents by the ophthalmologist in order to establish whether or not the reading skill is disproportionately retarded.

"Reading disability" is the term usually applied if the child is disproportionately retarded in reading. This is often associated with poor writing and spelling while other skills such as arithmetic may be normal or better. This self-explanatory term is preferred to others such as alexia, word blindness, strephosymbolia, visual agnosia and others which have been used to describe one or another aspect of the broad problem. Such terms as left-handed reversals, or mirror reading and writing, describe only one type and serve to confuse by wrongly implying that all poor readers have reversal tendencies in reading or writing or have some degree of ambidexterity. For clinical purposes poor readers may be classified into two groups, those who have *specific* reading disability and those in whom the disability is *nonspecific:*

1. *Specific* reading disability is caused by a confusion in the recognition of language symbols. It is usually associated with ambidexterity, comparative clumsiness, and an exaggeration and persistence of the normal childhood tendency to reversal of letters and symbols. This specific reading disability frequently goes unrecognized, and children who have such a shortcoming are liable to more severe trauma than are children with other kinds of reading disabilities. However, they are only a part of a large group of poor readers who should be differentiated from those who have *nonspecific* reading disabilities.

2. *Nonspecific* reading disability: For children in this group the lack of progress in learning to read may be due to low intelligence, lack of interest, insufficient readiness to read, ocular abnormalities, hearing defects, emotional problems in the school or home, and other obstacles to learning.

Since reading is such an important tool in the learning process, inability to master it may lead to a complexity of secondary conditions such as stuttering and emotional behavior problems. The mixed picture that may develop within a few years makes it difficult to untangle cause and effect. The resulting emotional problems, speech defects and blocked learning processes may be by-products of an original specific reading disability, and these by-products may assume greater importance than the original handicap. On the other hand, these factors may be the cause of retarded reading ability. It frequently requires the teamwork of an ophthalmologist, pediatrician, child psychiatrist, child psychologist, otolaryngologist and educator to make proper evaluation in a given case.

It is therefore important to be able to recognize *specific* reading disability. If a child *is* found to have a specific reading disability, then more direct attention may be focused on the reading problem and alternative methods of teaching him may be used in order to supply him with the necessary tools to become a good reader. Even here, the by-product of emotional problems that may arise because of repeated failures of the normally intelligent child to learn reading may merit special attention. A more direct attack, however, on the reading disability may be made with expectation of success in the cases of specific reading disability. If, on the other hand, the child is found *not* to have a specific reading disability, then the investigating consultants must determine which of the factors previously mentioned require attention and the relative importance of each factor. In cases of nonspecific reading dis-

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ability the emphasis should be placed on an investigation of the emotional or physical obstacles; the problem is primarily in the domain of the child psychiatrist and pediatrician rather than in that of the remedial reading teacher. Concomitant treatment of both problems is often necessary, and usually the success achieved is not as striking as it is in treatment of specific disability.

What are the characteristics of a specific reading disability? It is more common among boys than girls. There is a high incidence of left-handedness or ambidexterity, with a confusion between right and left, with an exaggeration and persistence of the normal childhood tendency to reversal of letters and symbols. This so-called "spatial confusion" causes the child to confuse *p* and *q*, *d* and *b*, etc. Short words tend to be reversed (*was* for *saw*, *on* for *no*) or confused (as *dog* and *boy*, *stop* and *tops*). Many beginners normally have such tendencies but outgrow them once they establish correct left-to-right sequences. Children with spatial confusion are not able to straighten this out; although of normal or high intelligence they have a very poor visual recall of words and are considerably impeded in the ability to read. There may be any degree of this situation, the most pronounced being mirror reading and writing.

Causes. The most common cause of a specific reading disability is the unfortunate application of a method of teaching wherein almost the entire emphasis is on visual recall to children who happen to have a specific deficiency in that task. These children with exaggerated spatial confusion and poor visual recall are especial victims of the "flash" method of teaching reading evolved by psychologists. By this method, almost the entire emphasis is on visual association. With this method, whole words may be "flashed" for the child to learn, sometimes with pictorial associations. It was found that for most children phrases and even short sentences could be learned as quickly as words, so these are flashed, with emphasis on the visual memory. The alphabet is more or less ignored. The educational emphasis is on speed and "learning by looking." This system works well for the majority of children, but for a child with spatial confusion and poor visual recall, it is catastrophic. He simply cannot learn by this method alone in spite of intelligence, effort and persuasion. This block may well be the cornerstone in the development of subsequent personality and speech disorders.

The neurological basis of a specific reading disability is for the most part unknown. Orton expressed the belief that the two cerebral hemispheres receive mirror images and that one becomes dominant: If the right cerebral hemisphere is dominant, the individual becomes left-handed, and early confusion in a right-handed world leads to a mixed dominance and exaggerated reversals. Cases have been reported of acquired disabilities with lesions of the dominant angular gyrus. It is probable that these are merely cases of unusual association of perceptual and motor skills as a sex-linked characteristic in left-handed or ambidextrous children.

Diagnosis. A presumptive clinical diagnosis of a specific reading disability may be made by noting a disproportionate inability to read, write or spell in otherwise intelligent children who are left-handed or ambidextrous and who confuse or reverse short words such as *was* and *saw*, *on* and *no*, *now* and *how*, *who* and *how*, *very* and *every*, and *ate* and *eat*, when asked to write or read such a list. Further tests may then be made to establish the exact nature of the specific reading disability. Most reading aptitude tests now in existence establish only that the child is a retarded reader, but do not truly differentiate the factors of spatial confusion, comprehension, vocabulary problems, "word reading," etc. Tests to help in making the distinctions are now being devised by the Reading Clinic at the Stanford University School of Medicine.

Treatment. Treatment should logically be directed at furnishing these children with alternative methods of learning to read. This may be done by reinforcing the visual method with phonetic, kinesthetic and auditory cues. In other words, the child needs to hear the word as well as see it, to break it up into parts and say it, and to feel it by writing it. Reliance should not be placed on just one of these cues, such as Orton's phonetics or Fernald's kinesthetics. A more eclectic approach to discover any suitable combination of methods in a given case should be used. The therapist may start at some level of phonetics, adapt it to the child so that he may break up the word into sounds. The child then says the word as he traces it, then writes it from memory and uses it in a composition. Soon the word may be pronounced properly by sight with mental tracing and phonetics. If the child can now mentally "say it," he can write it and then use it. Soon he, too, can learn words by sight, utilizing his own methods and reinforcing the visual cues. Comprehension and exactness are emphasized, with speed being added later. The child will thus develop strong associations for seeing, reading, writing, spelling and speaking.

Children who have been retarded readers for some time in the present teaching system in schools present complex problems and should be examined by an investigative team. In some cases it is unwise to treat a reading disability alone without proper knowledge of the other obstacles. A therapist must not permit discovery of a poor reading situation (even though it is caused by a specific disability) to obscure a more important family emotional problem. If the child manifests some easily determined characteristics of the specific disability, then more direct attention may be focused on the reading problem, although proper evaluation of the emotional problems must be made. In some cases, sole attention may be directed at the reading disability. In others, concomitant treatment of the reading disability and the emotional problems should be insti-

tuted. In some cases, the by-product of the psychiatric problems may assume primary importance. It should be emphasized that this discussion concerns principally the specific reading disability, and that in cases of the nonspecific disability outlined previously, the treatment is usually not directed solely at the reading problem.

Early recognition of difficulty in learning to read under the present system of teaching is important. Children who persist in exaggerated confusion by reading *boy* for *dog* or *God*, or who pronounce any of those words thoroughly garbled as *odg*, should be grouped together for an alternative method of teaching, incorporating phonetic and kinesthetic as well as visual cues. Furnishing the child with some tool by which he may learn to read at this stage may obviate many of the difficulties that may arise if the disability is overlooked. Children still unable to learn by supplementing phonetics and kinesthetics should be examined by people capable of evaluating intelligence quotient, visual and hearing handicaps, and emotional problems.

Prophylaxis. Prophylactic measures may be carried out in the field of reading problems in purest and simplest form by combining phonetic, kinesthetic and visual methods in the teaching of reading skills. Some children learn to read with very little instruction. "If a single method of learning is forced upon a group of individuals, the result will be that some of them will fail." If in the teaching of reading skills the child is offered several tools by which he may learn, he will select those best suited to his own capabilities. A teacher might combine the learning of the alphabet with the sounds of the letters and simple syllables, then add letter combinations in conjunction with words that are spoken, written and used. The child who has a specific reading disability will then be able to utilize his own system in learning these skills, although perhaps more slowly. Children who learn best by visual cues alone will also have alternative tools with which to master longer, unknown words. With the older, and unfortunately somewhat outmoded, methods of learning to read, the strong association between phonetics and kinesthetics made for an initial impediment in facility for silent reading or rapid comprehension. But this impediment is by no means insurmountable, as most persons so taught have found. A person with a specific reading disability learns to read better with the older combined methods of teaching.

For the present, there is no question that the majority of children learn faster and more easily by the visual flash method. But since there is a significantly higher incidence of the specific reading disability casualty by this method alone, other methods must be incorporated. Certainly the teacher should not, as is done in certain school systems, intensify the flash system when a child learns poorly by it. This is an example of "redoubling the effort when we have forgotten the aim." The aim is to teach children to read, not to confirm a particular system—to make it easier for all children to learn to read and to remove all possible obstacles as long as it is practical to do so. Many large cities have well organized remedial reading centers. Not many can boast of a logical educational program for the teaching of reading skills to avoid the pitfalls that make remedial reading centers necessary.

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